CAT 2019 Slot 1 – Quantitative Ability

Number of Questions: 34

Duration: 1 hour

Marking scheme: +3(for correct answer) & -1(for wrong answer)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34						

How to take value from this PDF?

- You can take this is as a sectional test. Or you can just solve these questions one-at-a-time regardless of any time limit. Either way, we want you to attempt the question first, before looking at the solution.
- A detailed video-solution has been provided for each question.
- For advice on CAT preparation, various test-taking strategies and MBA in general, click me.

How to use this PDF?

- Click on the blue colored “Answers” tab to see the correct answer to the question.
- The grey colored “Video solutions” tab will re-direct you to a YouTube page where the solution is elaborately discussed.
- Similarly, you can navigate back to the question from the solutions by clicking on the “Back to the Question” tab.
- You can find many CAT level questions from 2IIM’s Question Bank, that too free of cost. Click on questions.2iim.com(present at the bottom of each slide) to know more.

Question 1

A trader sells 10 litres of a mixture of paints A and B, where the amount of B in the mixture does not exceed that of A. The cost of paint A per litre is Rs. 8 more than that of paint B. If the trader sells the entire mixture for Rs. 264 and makes a profit of 10%, then the highest possible cost of paint B, in Rs. per litre, is

A)20

B)16

C)22

D)26

Question 2

In a circle with centre O and radius 1 cm, an arc AB makes an angle 60 degrees at O. Let R be the region bounded by the radii OA, OB and the arc AB. If C and D are two points on OA and OB, respectively, such that OC = OD and the area of triangle OCD is half that of R, then the length of OC, in cm, is

A) $\left(\frac{\Pi}{4}\right)^{\frac{1}{2}}$

B) $\left(\frac{\Pi}{6}\right)^{\frac{1}{2}}$

C) $\left(\frac{\pi}{4\sqrt{3}}\right)^{\frac{1}{2}}$

D) $\left(\frac{\Pi}{3\sqrt{3}}\right)^{\frac{1}{2}}$

Answer

Video Solution

Question 3

If f(x + 2) = f(x) + f(x + 1) for all positive integers x, and f(11) = 91, f(15) = 617, then f(10) equals. [TITA]

Answer

Video Solution

Question 4

The distance from A to B is 60 km. Partha and Narayan start from A at the same time and move towards B. Partha takes four hours more than Narayan to reach B. Moreover, Partha reaches the mid-point of A and B two hours before Narayan reaches B. The speed of Partha, in km per hour, is

A) 6

B) 3

C) 4

D) 5

Answer

Video Solution

Question 5

A CAT aspirant appears for a certain number of tests. His average score increases by 1 if the first 10 tests are not considered, and decreases by 1 if the last 10 tests are not considered. If his average scores for the first 10 and the last 10 tests are 20 and 30, respectively, then the total number of tests taken by him is [TITA]

Answer

Video Solution

Question 6

Two types of tea, A and B, are mixed and then sold at Rs. 40 per kg. The profit is 10% if A and B are mixed in the ratio 3 : 2, and 5% if this ratio is 2 : 3. The cost prices, per kg, of A and B are in the ratio

A) 21 : 25

B) 19 : 24

C) 18 : 25

D) 17 : 25

Answer

Video Solution

Question 7

A wholesaler bought walnuts and peanuts, the price of walnut per kg being thrice that of peanut per kg. He then sold 8 kg of peanuts at a profit of 10% and 16 kg of walnuts at a profit of 20% to a shopkeeper. However, the shopkeeper lost 5 kg of walnuts and 3 kg of peanuts in transit. He then mixed the remaining nuts and sold the mixture at Rs. 166 per kg, thus making an overall profit of 25%. At what price, in Rs. per kg, did the wholesaler buy the walnuts?

A) 84

B) 86

C) 96

D) 98

Answer

Video Solution

Question 8

When they work alone, B needs 25% more time to finish a job than A does. They two finish the job in 13 days in the following manner: A works alone till half the job is done, then A and B work together for four days, and finally B works alone to complete the remaining 5% of the job. In how many days can B alone finish the entire job?

A) 16

B) 22

C) 20

D) 18

Answer

Video Solution

Question 9

Given an equilateral triangle T1 with side 24 cm, a second triangle T2 is formed by joining the midpoints of the sides of T1. Then a third triangle T3 is formed by joining the midpoints of the sides of T2. If this process of forming triangles is continued, the sum of the areas, in sq cm, of infinitely many such triangles T1, T2, T3,... will be

A) 192√3

B)164√3

C)248√3

D)188√3

Answer

Video Solution

Question 10

While multiplying three real numbers, Ashok took one of the numbers as 73 instead of 37. As a result, the product went up by 720. Then the minimum possible value of the sum of squares of the other two numbers is: [TITA]

Answer

Video Solution

Question 11

If x is a positive quantity such that $2^x = 3^{\log_5 2}$, then x is equal to

A) $\log_5 9$

B) $1 + \log_5 \left(\frac{3}{5}\right)$

C) $1 + \log_3 \left(\frac{5}{3}\right)$

D) $\log_5 8$

Answer

Video Solution

Question 12

If $\log_{12} 81 = p$, then $3\left(\frac{4-p}{4+p}\right)$ is equal to:

A) $\log_2 8$
B) $\log_6 8$
C) $\log_4 16$
D) $\log_6 16$

Answer
Video Solution

Question 13

A right circular cone, of height 12 ft, stands on its base which has diameter 8 ft. The tip of the cone is cut off with a plane which is parallel to the base and 9 ft from the base. With $\pi = 22/7$, the volume, in cubic ft, of the remaining part of the cone is:[TITA]

Answer

Video Solution

Question 14

How many numbers with two or more digits can be formed with the digits 1, 2, 3, 4, 5, 6, 7, 8, and 9 so that in every such number, each digit is used at most once and the digits appear in the ascending order?[TITA]

Answer

Video Solution

Question 15

John borrowed Rs. 2,10,000 from a bank at an interest rate of 10% per annum, compounded annually. The loan was repaid in two equal instalments, the first after one year and the second after another year. The first instalment was interest of one year plus part of the principal amount, while the second was the rest of the principal amount plus due interest thereon. Then each instalment, in Rs., is: [TITA]

Answer

Video Solution

Question 16

If $u^2 + (u - 2v - 1)^2 = -4v(u + v)$, then what is the value of u + 3v?

A) $\frac{1}{4}$

B) $\frac{1}{2}$

C) 0

D) $-\frac{1}{4}$

Answer

Video Solution

Question 17

Point P lies between points A and B such that the length of BP is thrice that of AP. Car 1 starts from A and moves towards B. Simultaneously, car 2 starts from B and moves towards A. Car 2 reaches P one hour after car 1 reaches P. If the speed of car 2 is half that of car 1, then the time, in minutes, taken by car 1 in reaching P from A is:[TITA]

Answer

Video Solution

Question 18

Let ABCD be a rectangle inscribed in a circle of radius 13 cm. Which one of the following pairs can represent, in cm, the possible length and breadth of ABCD?

A) 25, 10

B) 24, 12

C) 25, 9

D) 24, 10

Question 19

In an examination, the maximum possible score is N while the pass mark is 45% of N. A candidate obtains 36 marks, but falls short of the pass mark by 68%. Which one of the following is then correct?

A) $N \leq 200$

B) $243 \leq N \leq 252$

C) $N \geq 253$

D) $201 \leq N \leq 242$

Answer

Video Solution

Question 20

Let x, y, z be three positive real numbers in a geometric progression such that x < y < z. If 5x, 16y, and 12z are in an arithmetic progression then the common ratio of the geometric progression is

A) $\frac{1}{6}$

B) $\frac{3}{6}$

C) $\frac{3}{2}$

D) $\frac{5}{2}$

Answer

Video Solution

Question 21

The number of integers x such that $0.25 < 2^x < 200$, and $2^x + 2$ is perfectly divisible by either 3 or 4, is [TITA]

Answer

Video Solution

Question 22

Each of 74 students in a class studies at least one of the three subjects H, E and P. Ten students study all three subjects, while twenty study H and E, but not P. Every student who studies P also studies H or E or both. If the number of students studying H equals that studying E, then the number of students studying H is [TITA]

Answer

Video Solution

Question 23

Train T leaves station X for station Y at 3 pm. Train S, traveling at three quarters of the speed of T, leaves Y for X at 4 pm. The two trains pass each other at a station Z, where the distance between X and Z is three-fifths of that between X and Y. How many hours does train T take for its journey from X to Y? [TITA]

Answer

Video Solution

Question 24

Points E, F, G, H lie on the sides AB, BC, CD, and DA, respectively, of a square ABCD. If EFGH is also a square whose area is 62.5% of that of ABCD and CG is longer than EB, then the ratio of length of EB to that of CG is:

A) 1 : 3

B) 4 : 9

C) 2 : 5

D) 3 : 8

Question 25

Given that $x^{2018}\ y^{2017} = 1/2$ and $x^{2016}\ y^{2019} = 8$, the value of $x^2 + y^3$ is

A) $\frac{37}{4}$

B) $\frac{31}{4}$

C) $\frac{35}{4}$

D) $\frac{33}{4}$

Answer

Video Solution

Question 26

Raju and Lalitha originally had marbles in the ratio 4 : 9. Then Lalitha gave some of her marbles to Raju. As a result, the ratio of the number of marbles with Raju to that with Lalitha became 5 : 6. What fraction of her original number of marbles was given by Lalitha to Raju?

A) $\frac{1}{4}$

B) $\frac{1}{5}$

C) $\frac{6}{19}$

D) $\frac{7}{33}$

Answer

Video Solution

Question 27

If $\log_2(5 + \log_3 a) = 3$ and $\log_5(4a + 12 + \log_2 b) = 3$, then $a + b$ is equal to:

A) 32

B) 59

C) 67

D) 40

Answer

Video Solution

Question 28

Humans and robots can both perform a job but at different efficiencies. Fifteen humans and five robots working together take thirty days to finish the job, whereas five humans and fifteen robots working together take sixty days to finish it. How many days will fifteen humans working together (without any robot) take to finish it?

A) 40

B) 32

C) 36

D) 45

Answer

Video Solution

Question 29

In a parallelogram ABCD of area 72 sq cm, the sides CD and AD have lengths 9 cm and 16 cm, respectively. Let P be a point on CD such that AP is perpendicular to CD. Then the area, in sq cm, of triangle APD is:

A) 18√3

B) 24√3

C) 32√3

D) 12√3

Answer

Video Solution

Question 30

In a circle, two parallel chords on the same side of a diameter have lengths 4 cm and 6 cm. If the distance between these chords is 1 cm, then the radius of the circle, in cm, is

A) $\sqrt{13}$

B) $\sqrt{14}$

C) $\sqrt{11}$

D) $\sqrt{12}$

Answer

Video Solution

Question 31

A tank is fitted with pipes, some filling it and the rest draining it. All filling pipes fill at the same rate, and all draining pipes drain at the same rate. The empty tank gets completely filled in 6 hours when 6 filling and 5 draining pipes are on, but this time becomes 60 hours when 5 filling and 6 draining pipes are on. In how many hours will the empty tank get completely filled when one draining and two filling pipes are on? [TITA]

Answer

Video Solution

Question 32

If among 200 students, 105 like pizza and 134 like burger, then the number of students who like only burger can possibly be

A) 26

B) 23

C) 96

D) 93

Answer

Video Solution

Question 33

Let $f(x)=\min\{2x^2, 52 - 5x\}$, where x is any positive real number. Then the maximum possible value of f(x) is [TITA]

Answer

Video Solution

Question 34

In an apartment complex, the number of people aged 51 years and above is 30 and there are at most 39 people whose ages are below 51 years. The average age of all the people in the apartment complex is 38 years. What is the largest possible average age, in years, of the people whose ages are below 51 years?

A)25

B)26

C)27

D)28

Answer

Video Solution

Done with the Questions! Take a break☺

- 2IIM offers a fabulous, comprehensive course on CAT preparation.
- A chunk of the course has been made available totally free of cost. So sign up as a trial user and check out our free content asap!
- Practice, practice and then practice some more. 2IIM's Question bank is generally a must-solve on all serious CAT aspirants' checklist. Click this to check it out!

Solutions

Click to go "Back to the Question page"

1) Option A
2) Option D
3) 54
4) Option D
5) 60
6) Option B
7) Option C
8) Option C
9) Option A
10) 40
11) Option B
12) Option B
13) 198
14) 502
15) 121000
16) Option D
17) 12
18) Option D
19) Option B
20) Option D
21) 5
22) 52
23) 36
24) Option A
25) Option D
26) Option D
27) Option B
28) Option B
29) Option C
30) Option A
31) 10
32) Option D
33) 32
34) Option A

A trader sells 10 litres of a mixture of paints A and B, where the amount of B in the mixture does not exceed that of A. The cost of paint A per litre is Rs. 8 more than that of paint B. If the trader sells the entire mixture for Rs. 264 and makes a profit of 10%, then the highest possible cost of paint B, in Rs. per litre, is

A)20

B)16

C)22

D)26

Click to go "Back to Question" →

Back to Question

Video Solution

Difficulty Level – Medium

Topic – Mixtures and Alligations

Sol 2

In a circle with centre O and radius 1 cm, an arc AB makes an angle 60 degrees at O. Let R be the region bounded by the radii OA, OB and the arc AB. If C and D are two points on OA and OB, respectively, such that OC = OD and the area of triangle OCD is half that of R, then the length of OC, in cm, is

A) $\left(\frac{\Pi}{4}\right)^{\frac{1}{2}}$

B) $\left(\frac{\Pi}{6}\right)^{\frac{1}{2}}$

C) $\left(\frac{\pi}{4\sqrt{3}}\right)^{\frac{1}{2}}$

D) $\left(\frac{\boldsymbol{\Pi}}{\boldsymbol{3\sqrt{3}}}\right)^{\frac{\mathbf{1}}{\mathbf{2}}}$

Difficulty Level – Easy

Topic – Geometry

Back to Question

Video Solution

Sol 3

If f(x + 2) = f(x) + f(x + 1) for all positive integers x, and f(11) = 91, f(15) = 617, then f(10) equals. [TITA]

Answer: **54**

Difficulty Level – Medium

Topic – Functions

Back to Question

Video Solution

Sol 4

The distance from A to B is 60 km. Partha and Narayan start from A at the same time and move towards B. Partha takes four hours more than Narayan to reach B. Moreover, Partha reaches the mid-point of A and B two hours before Narayan reaches B. The speed of Partha, in km per hour, is

A) 6

B) 3

C) 4

D) **5**

Difficulty Level – Easy

Topic – Speed, Time and Distance

Back to Question

Video Solution

Sol 5

A CAT aspirant appears for a certain number of tests. His average score increases by 1 if the first 10 tests are not considered, and decreases by 1 if the last 10 tests are not considered. If his average scores for the first 10 and the last 10 tests are 20 and 30, respectively, then the total number of tests taken by him is [TITA]

Answer: **60**

Difficulty Level – Easy

Topic – Averages

Back to Question

Video Solution

Sol 6

Two types of tea, A and B, are mixed and then sold at Rs. 40 per kg. The profit is 10% if A and B are mixed in the ratio 3 : 2, and 5% if this ratio is 2 : 3. The cost prices, per kg, of A and B are in the ratio

A) 21 : 25

B) **19 : 24**

C) 18 : 25

D) 17 : 25

Difficulty Level – Easy

Topic – Ratio and Proportions

Back to Question

Video Solution

Sol 7

A wholesaler bought walnuts and peanuts, the price of walnut per kg being thrice that of peanut per kg. He then sold 8 kg of peanuts at a profit of 10% and 16 kg of walnuts at a profit of 20% to a shopkeeper. However, the shopkeeper lost 5 kg of walnuts and 3 kg of peanuts in transit. He then mixed the remaining nuts and sold the mixture at Rs. 166 per kg, thus making an overall profit of 25%. At what price, in Rs. per kg, did the wholesaler buy the walnuts?

A) 84

B) 86

C) **96**

D) 98

Difficulty Level – Medium

Topic – Mixtures

Back to Question

Video Solution

Sol 8

When they work alone, B needs 25% more time to finish a job than A does. They two finish the job in 13 days in the following manner: A works alone till half the job is done, then A and B work together for four days, and finally B works alone to complete the remaining 5% of the job. In how many days can B alone finish the entire job?

A) 16

B) 22

C) **20**

D) 18

Difficulty Level – Easy

Topic – Work and Time

Back to Question

Video Solution

Sol 9

Given an equilateral triangle T1 with side 24 cm, a second triangle T2 is formed by joining the midpoints of the sides of T1. Then a third triangle T3 is formed by joining the midpoints of the sides of T2. If this process of forming triangles is continued, the sum of the areas, in sq cm, of infinitely many such triangles T1, T2, T3,... will be

A) **192√3**

B)164√3

C)248√3

D)188√3

Difficulty Level – Easy

Topic – Geometry

Back to Question

Video Solution

Sol 10

While multiplying three real numbers, Ashok took one of the numbers as 73 instead of 37. As a result, the product went up by 720. Then the minimum possible value of the sum of squares of the other two numbers is: [TITA]

Answer: 40

Difficulty Level – Easy

Topic – Number Theory

Back to Question

Video Solution

Sol 11

If x is a positive quantity such that $2^x = 3^{\log_5 2}$, then x is equal to

A) $\log_5 9$

B) $\mathbf{1 + log_5 \left(\frac{3}{5}\right)}$

C) $1 + \log_3 \left(\frac{5}{3}\right)$

D) $\log_5 8$

Difficulty Level – Easy

Topic – Logarithm

Back to Question

Video Solution

Sol 12

If $\log_{12} 81 = p$, then $3\left(\frac{4-p}{4+p}\right)$ is equal to:

A) $\log_2 8$

B) $\boldsymbol{\log_6 8}$

C) $\log_4 16$

D) $\log_6 16$

Difficulty Level – Easy

Topic – Logarithm

Back to Question

Video Solution

Sol 13

A right circular cone, of height 12 ft, stands on its base which has diameter 8 ft. The tip of the cone is cut off with a plane which is parallel to the base and 9 ft from the base. With $\pi = 22/7$, the volume, in cubic ft, of the remaining part of the cone is:[TITA]

Answer: 198

Difficulty Level – Easy

Topic – Mensuration

Back to Question

Video Solution

Sol 14

How many numbers with two or more digits can be formed with the digits 1, 2, 3, 4, 5, 6, 7, 8, and 9 so that in every such number, each digit is used at most once and the digits appear in the ascending order?[TITA]

Answer: 502

Difficulty Level – Hard

Topic – Number Theory

Back to Question

Video Solution

Sol 15

John borrowed Rs. 2,10,000 from a bank at an interest rate of 10% per annum, compounded annually. The loan was repaid in two equal instalments, the first after one year and the second after another year. The first instalment was interest of one year plus part of the principal amount, while the second was the rest of the principal amount plus due interest thereon. Then each instalment, in Rs., is: [TITA]

Answer: 1,21,000

Difficulty Level – Medium

Topic – SI & CI

Back to Question

Video Solution

Sol 16

If $u^2 + (u - 2v - 1)^2 = -4v(u + v)$, then what is the value of u + 3v?

A) $\frac{1}{4}$

B) $\frac{1}{2}$

C) 0

D) $-\frac{1}{4}$

Difficulty Level – Medium

Topic – Linear and Quadratic Equations

Back to Question

Video Solution

Sol 17

Point P lies between points A and B such that the length of BP is thrice that of AP. Car 1 starts from A and moves towards B. Simultaneously, car 2 starts from B and moves towards A. Car 2 reaches P one hour after car 1 reaches P. If the speed of car 2 is half that of car 1, then the time, in minutes, taken by car 1 in reaching P from A is:[TITA]

Answer: **12**

Difficulty Level – Easy

Topic – Speed, Time and Distance

Back to Question

Video Solution

Sol 18

Let ABCD be a rectangle inscribed in a circle of radius 13 cm. Which one of the following pairs can represent, in cm, the possible length and breadth of ABCD?

A) 25, 10

B) 24, 12

C) 25, 9

D) **24, 10**

Difficulty Level – Easy

Topic – Geometry

Back to Question

Video Solution

Sol 19

In an examination, the maximum possible score is N while the pass mark is 45% of N. A candidate obtains 36 marks, but falls short of the pass mark by 68%. Which one of the following is then correct?

A) $N \leq 200$

B) **$243 \leq N \leq 252$**

C) $N \geq 253$

D) $201 \leq N \leq 242$

Difficulty Level – Hard

Topic – Percentages

Back to Question

Video Solution

Sol 20

Let x, y, z be three positive real numbers in a geometric progression such that x < y < z. If 5x, 16y, and 12z are in an arithmetic progression then the common ratio of the geometric progression is

A) $\frac{1}{6}$

B) $\frac{3}{6}$

C) $\frac{3}{2}$

D) $\frac{5}{2}$

Difficulty Level – Easy

Topic – Sequence & Series

Back to Question

Video Solution

Sol 21

The number of integers x such that $0.25 < 2^x < 200$, and $2^x + 2$ is perfectly divisible by either 3 or 4, is [TITA]

Answer: **5**

Difficulty Level – Hard

Topic – Number Theory

Back to Question

Video Solution

Sol 22

Each of 74 students in a class studies at least one of the three subjects H, E and P. Ten students study all three subjects, while twenty study H and E, but not P. Every student who studies P also studies H or E or both. If the number of students studying H equals that studying E, then the number of students studying H is [TITA]

Answer: **52**

Difficulty Level – Easy

Topic – Set Theory

Back to Question

Video Solution

Sol 23

Train T leaves station X for station Y at 3 pm. Train S, traveling at three quarters of the speed of T, leaves Y for X at 4 pm. The two trains pass each other at a station Z, where the distance between X and Z is three-fifths of that between X and Y. How many hours does train T take for its journey from X to Y? [TITA]

Answer: **15**

Difficulty Level – Easy

Topic – Speed, Time and Distance

Back to Question

Video Solution

Sol 24

Points E, F, G, H lie on the sides AB, BC, CD, and DA, respectively, of a square ABCD. If EFGH is also a square whose area is 62.5% of that of ABCD and CG is longer than EB, then the ratio of length of EB to that of CG is:

A) **1 : 3**

B) 4 : 9

C) 2 : 5

D) 3 : 8

Difficulty Level – Medium

Topic – Geometry

Back to Question

Video Solution

Sol 25

Given that $x^{2018}\ y^{2017} = 1/2$ and $x^{2016}\ y^{2019} = 8$, the value of $x^2 + y^3$ is

A) $\frac{37}{4}$

B) $\frac{31}{4}$

C) $\frac{35}{4}$

D) $\mathbf{\frac{33}{4}}$

Difficulty Level – Medium

Topic – Exponents

Back to Question

Video Solution

Sol 26

Raju and Lalitha originally had marbles in the ratio 4 : 9. Then Lalitha gave some of her marbles to Raju. As a result, the ratio of the number of marbles with Raju to that with Lalitha became 5 : 6. What fraction of her original number of marbles was given by Lalitha to Raju?

A) $\frac{1}{4}$

B) $\frac{1}{5}$

C) $\frac{6}{19}$

D) $\mathbf{\frac{7}{33}}$

Difficulty Level – Easy

Topic – Ratio & Proportion

Back to Question

Video Solution

Sol 27

If $\log_2(5 + \log_3 a) = 3$ and $\log_5(4a + 12 + \log_2 b) = 3$, then $a + b$ is equal to:

A) 32

B) **59**

C) 67

D) 40

Difficulty Level – Easy

Topic – Logarithms

Back to Question

Video Solution

Sol 28

Humans and robots can both perform a job but at different efficiencies. Fifteen humans and five robots working together take thirty days to finish the job, whereas five humans and fifteen robots working together take sixty days to finish it. How many days will fifteen humans working together (without any robot) take to finish it?

A) 40

B) **32**

C) 36

D) 45

Difficulty Level – Easy

Topic – Work and Time

Back to Question

Video Solution

Sol 29

In a parallelogram ABCD of area 72 sq cm, the sides CD and AD have lengths 9 cm and 16 cm, respectively. Let P be a point on CD such that AP is perpendicular to CD. Then the area, in sq cm, of triangle APD is:

A) 18√3

B) 24√3

C) 32√3

D) 12√3

Difficulty Level – Easy

Topic – Mensuration

Back to Question

Video Solution

Sol 30

In a circle, two parallel chords on the same side of a diameter have lengths 4 cm and 6 cm. If the distance between these chords is 1 cm, then the radius of the circle, in cm, is

A) $\sqrt{13}$

B) $\sqrt{14}$

C) $\sqrt{11}$

D) $\sqrt{12}$

Difficulty Level – Easy

Topic – Geometry

Back to Question

Video Solution

Sol 31

A tank is fitted with pipes, some filling it and the rest draining it. All filling pipes fill at the same rate, and all draining pipes drain at the same rate. The empty tank gets completely filled in 6 hours when 6 filling and 5 draining pipes are on, but this time becomes 60 hours when 5 filling and 6 draining pipes are on. In how many hours will the empty tank get completely filled when one draining and two filling pipes are on? [TITA]

Answer: **10**

Difficulty Level – Easy

Topic – Pipes & Cisterns

Back to Question

Video Solution

Sol 32

If among 200 students, 105 like pizza and 134 like burger, then the number of students who like only burger can possibly be

A) 26

B) 23

C) 96

D) **93**

Difficulty Level – Medium

Topic – Set Theory

Back to Question

Video Solution

Sol 33

Let $f(x)=\min\{2x^2, 52 - 5x\}$, where x is any positive real number. Then the maximum possible value of f(x) is [TITA]

Answer: **32**

Difficulty Level – Easy

Topic – Functions

Back to Question

Video Solution

Sol 34

In an apartment complex, the number of people aged 51 years and above is 30 and there are at most 39 people whose ages are below 51 years. The average age of all the people in the apartment complex is 38 years. What is the largest possible average age, in years, of the people whose ages are below 51 years?

A)25

B)26

C)27

D)**28**

Difficulty Level – Medium

Topic – Averages

Back to Question

Video Solution

Done with the answers too!

- Find our online course at: online.2iim.com
- About 2IIM's CAT course: We have got a fabulous response for our course. Check out this Quora thread, where genuine students have shared their opinions about our course.
- 2IIM's Facebook group has more than 17K members. We keep sharing reading material for VARC almost everyday.
- We have around 76K subscribers on our YouTube channel. We post solutions to CAT problems, as well as general test-taking strategies, interviews etc.
- We have a wonderful, informative blog which is widely read.

Visit online.2IIM.com,

Sign up as a trial user, learn 40 Hours for free!

To Learn and Practice more CAT Level Questions

Visit - Questions.2IIM.com